

Please add the following text at page 11, between lines 11 and 12:

--Referring to FIG. 1, according to an exemplary embodiment, a system 100 is provided for inerting an aircraft fuel tank 30. The system 100 comprises one or more first membrane modules 10 for separating compressed air into a first permeate stream comprising oxygen-enriched air and a first retentate stream comprising nitrogen-enriched air. A first conduit 12 is provided for conveying the first retentate stream into the fuel tank 30 during periods of low demand for nitrogen-enriched air.

The system 100 also comprises one or more second membrane modules 20 for separating compressed air into a second permeate stream comprising oxygen-enriched air and a second retentate stream comprising nitrogen-enriched air. A second conduit 22 is provided for conveying the second retentate stream into the fuel tank 30 during periods of high demand for nitrogen-enriched air.

A third conduit 14 is provided for introducing at least one of said first retentate stream and said second retentate stream directly into the fuel in said fuel tank 30 to liberate at least a portion of dissolved O₂ in the fuel. The one or more first membrane modules 10 have a lower O₂ permeance and a higher O₂/N₂ selectivity than the one or more second membrane modules 20.

Referring to FIG. 2, according to another exemplary embodiment, a system 200 is provided for inerting an aircraft fuel tank 70. The system 200 comprises one or more first membrane modules 50 for separating compressed air into a first permeate stream comprising oxygen-enriched air and a first retentate stream comprising nitrogen-enriched

air. A first conduit 52 is provided for conveying the first retentate stream into the fuel tank 70 during periods of low demand for nitrogen-enriched air.

The system 200 also comprises one or more second membrane modules 60 for separating compressed air into a second permeate stream comprising oxygen-enriched air and a second retentate stream comprising nitrogen-enriched air. A second conduit 62 is provided for conveying the second retentate stream into the fuel tank 70 during periods of high demand for nitrogen-enriched air.

The first and/or second conduits 52 and 62 are connected to introduce the first and/or second retentate stream, respectively, directly into the fuel in the fuel tank 70 to liberate at least a portion of dissolved O₂ in the fuel. The one or more first membrane modules 50 have a lower O₂ permeance and a higher O₂/N₂ selectivity than the one or more second membrane modules 60.--

IN THE CLAIMS:

Please replace claims 1, 5, 14, 16 and 25 as follows.

1. (Twice Amended) A method for inerting an aircraft fuel tank, said method comprising the steps of:

(a) contacting compressed air with one or more first membrane modules at conditions effective to produce a first nitrogen-enriched air stream;

(b) introducing said first nitrogen-enriched air stream into said fuel tank during periods of low demand for nitrogen-enriched air;